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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/800,749	03/07/2001	Mingliang L. Tsai	H0001805 (4300)	4760

7590

11/21/2003

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EXAMINER

NOLAN, SANDRA M

ART UNIT

PAPER NUMBER

1772

DATE MAILED: 11/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

2614

Office Action Summary

Application No.

09/800,749

Applicant(s)

TSAI ET AL.

Examiner

Sandra M. Nolan

Art Unit

1772

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 4-50 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4-13,15-43,45,46 and 48-50 is/are rejected.
- 7) ☒ Claim(s) 14, 44 and 47 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claims

1. Claims 1 and 4-50 are pending.

Rejections Withdrawn

2. The 35 USC 103 rejection of 1, 4-9, 11-17, 24, 26, 41-44 and 47-50 as being unpatentable over Laplante et al (US 2002/0002238 A1) in view of Cahill et al (US 6,346,308), as expressed in section 6 of the 10 July 2003 office action (Paper No. 12), is withdrawn in view of applicants' arguments in the response dated 15 September 2003 (Paper No. 13).
3. The 35 USC 103 rejection of claim 10 as being unpatentable over Laplante and Cahill and further in view of applicants' admission concerning the conventionality of retortable EVOH on page 3 of the specification, as set forth in section 7 of Paper No. 12, is withdrawn in view of applicants' arguments in Paper No. 13.
4. The 35 USC 103 rejection of claims 18, 25 and 45 as unpatentable over Laplante and Cahill further in view of Tai (EPO 1033080 A2), as set out in section 8 of Paper No. 12, is withdrawn in view of applicants' arguments in Paper No. 13.

Allowable Subject Matter

5. Claims 14, 44 and 47 are objected to for being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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6. The prior art of record fails to teach or suggest the use of base catalysts or the production of reaction products by contacting maleic anhydride-modified polybutadienes, ethylene/vinyl alcohol (EVOH) resin and transition metal compounds.

New Rejections

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1, 4-13, 15-43, 45-46 and 48-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tai in view of Cahill.

Tai teaches oxygen absorbent resin compositions (title) containing blends of polydiene resins (col. 8, lines 7-14), EVOH resins (col. 14, lines 37-41) and transition metal salts (col. 17, lines 23-29). Films are made (col. 28, lines 49-52). The compositions may be coated with thermoplastics to yield multilayer articles (col. 28, lines 53-57). Multilayer structures can be made and handled in various ways, including extrusion, dry lamination, blow molding, stretch forming, film drawing and uniaxial or biaxial stretching (col. 32, lines 15-29). The ingredients may be dry or melt blended (col. 39, lines 33-40). Bottles are made (col. 37, line 58). Hydrotalcite clay is taught as an additive (col. 20, lines 50-56).

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Tai fails to teach maleic anhydride-modified ("maleated") polybutadienes.

Cahill teaches maleated polybutadienes at col. 5, lines 27-54. It teaches that the maleic anhydride reactant (line 52) yields esterification sites in the polybutadiene (line 38) to enhance its oxygen scavenging. Note col. 5, lines 35-54.

Tai and Cahill are analogous because they both deal with oxygen scavenging resin systems.

It would have been obvious to one having ordinary skill in the art at the time that the invention was made to employ the maleated polybutadienes of Cahill in the compositions, products and processes of Tai in order to enhance the oxygen scavenging properties of articles made therewith.

The motivation to employ the maleated polybutadienes of Cahill in the compositions, products and processes of Tai is found at col. 5, lines 35-54, where the introduction of esterification sites into polybutadiene is said to enhance oxygen scavenging.

In the absence of convincing objective evidence to the contrary, the preblending of an additive with a resin component is deemed a matter of engineering choice. Such preblends, or masterbatches, are conventional.

Likewise, the use of retortable EVOH in the compositions, articles and processes suggested by the combination of Tai and Cahill is deemed a matter of properties optimization. Clearly, retortable EVOH's--such as those discussed on page 3 of applicants' specification--would be preferred when products packaged in using the combined Tai and Cahill technologies are retorted.

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Response to Arguments

Applicant's arguments with respect to claims 1, 4-13, 15-43, 45-46 and 48-50 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication should be directed to the Examiner, Sandra M. Nolan, whose telephone number is 703/308-9545. The Examiner can normally be reached on Monday through Thursday, from 6:30 am to 4:00 pm, Eastern Time.

If attempts to reach the Examiner by telephone are unsuccessful, her supervisor, Harold Pyon, can be reached at 703/308-4251. The general fax number for the art unit is 703/305-5436. The fax number for after final communications is 703/872-9310. The receptionist answers 703/308-0661.



S. M. Nolan
Patent Examiner
Technology Center 1700

SMN/smn
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17 November 2003